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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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03/15/2005

Georg Ignatius

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EXAMINER

PIERCE, WILLIAM M

ART UNIT

PAPER NUMBER

3711

MAIL DATE

DELIVERY MODE

03/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/500,496	Applicant(s) IGNATIUS, GEORG	
	Examiner William M. Pierce	Art Unit 3711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

Claims 1, 3, 6, 7-21, 23 and 25-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Wright et al. 6,431,996.

As to claim 1, Wright shows an instrument such as a club with a plurality of regions 306, 302, 308, 310, 304, 312 and 314 of different material col. 9, ln. 56+ and corresponds to a series as shown in figs. 2-4. As to claim 3, Wright shows region 306 in the handle. As to claim 6, the regions of Wright are considered strip like in that they are "located along the shaft" (abstract, ln. 4) like would be a strip. As to claims 7, 8 and 11 the distances between the centers of the sectional regions as shown in fig. 8 are dimensional with an active organization or characteristic results as shown in the graph provided with the figure that shows a sequence with vibrationally-relevant parameters. As to claims 9 and 12, the regions in fig. 8 are vibrationally varying as shown by the fluctuations in the graph provided. As to claim 10, the sequence shown in fig. 8 varies statistically by a random generator such as the instruments 54 and 56. As to claims 13- 19 the seven regions of Wright in fig. 8 show a vibrationally active organization superimposed on the structure of the shaft at a plurality of different intervals that are approximately equally distant as shown by 308 and 310 according to a harmonic series as shown in figs. 2-4. As to claims 20 and 21 the regions of metal are along the edge of the shaft. As to claims 29 and 31, vibrations and waves are an extensive field of physics in which a harmonic series is known to be inherent in all vibrations like those shown by Wright. The "simple harmonic motion" used to describe vibrations like those described in Wright are well known. Copies of a text book on Vibrations and Waves have been included to show the inherency of the claimed subject matter. As to claims 25-27 and 30, Wright shows the use of material, mass and strip-shaped regions in figs. 5-8. As to claim 28, the series of Wright shown in figs. 8 and 9 can be generated by a random number. As to claims 32 and 33, at least two sequences extending over at least five divisions is considered shown in fig. 8 and 9. The function of the placement of the stiffeners in Wright inherently creates a changed vibration spectrum with lower vibrational amplitudes as called for by claim 34.

Applicant argues that Wright fails to show the newly added limitation of "ones of the active elements of each of said at least one ordered sequence being arranged according (to) at least one mathematically or algorithmically derived series. While Wright does not specifically does not discuss any mathematically or algorithmically derived series, neither does the applicant's specification. Wright does show in his fig. 2 a mathematically derived series as a function of amplitude verses frequency and aims to "strategically locate" (col. 2, ln. 19) the regions of his stiffeners at their "optimum locations" (col. 6, ln. 51). Figs. 8 and 9 are considered to show mathematical series in graphic form used to arrange the ordered sequence of his "active elements" that meets the new limitations of the claims. Where applicant argues that Wright uses "experiment and measurement" that is not "mathematically..." derived, examiner cannot agree. True Wright tests and measures his clubs. Once done, he gets a "mathematical" representation used to position his stiffeners. His figs. 8 and 9 show this process.

Where applicant argues that the examiner's assertion that Wright inherently shows a harmonic series is misplaced, examiner does not agree. Figs. 8 and 9 show the placement of the active elements of Wright according to measurements made on the shaft (col. 2, ln. 13). These measurements inherently deal with a relationship to vibrations including a harmonic series. Applicant has not met his burden of showing where a harmonic series of vibrations is inherently present in the placement of the stiffeners of Wright.

Claim Rejections - 35 USC § 103

Claim 2, 4, 5, 22 and 24 is rejected under 35 U.S.C. 103a) as being unpatentable over Wright in view of Leon 5,707,302 and further in view of Yamaguchi 4,928,965.

As to claims 2 and 4, Wright is only concerned with handling the vibration associated with the shaft. It is well known to employ methods to handle vibration in the impact part such as in the head such as taught by Leon. To have included to have provided elastomer material on the impact region of Wright would have been obvious in order to minimize vibration. As to claim 5, 11 is considered to be volume of a solid body. As to claims 22 and 24 the applications of vibration modification techniques from one type of sport device to another is well known. See Yamaguchi 4,928,965 who teaches that such designing techniques can be used on a bat, club, racket or paddle for an example.

Applicant reiterates the remarks set forth with respect to Wright under 102. As such no further comment is deemed necessary.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Pierce whose telephone number is 571-272-4414 and E-mail address is bill.pierce@USPTO.gov. The examiner can normally be reached on Monday and Friday 9:00 to 7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Kim can be reached on 571-272-4463. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/William M Pierce/

Primary Examiner, Art Unit 3711

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